

Title (en)

SYSTEMS AND METHODS FOR CALIBRATING DUAL POLARIZATION RADAR SYSTEMS

Title (de)

SYSTEME UND VERFAHREN ZUR KALIBRIERUNG VON DOPPELPOLARISATIONSRADARSYSTEMEN

Title (fr)

SYSTÈMES ET PROCÉDÉS POUR ÉTALONNER DES SYSTÈMES DE RADAR À DOUBLE POLARISATION

Publication

EP 2694995 A4 20150318 (EN)

Application

EP 12768519 A 20120406

Priority

- US 201161472773 P 20110407
- US 2012032569 W 20120406

Abstract (en)

[origin: US2012256785A1] A dual polarization radar system is calibrated based on real-time data measurements, such as measured horizontal and vertical reflectivities, ZH and ZV. In this regard, the radar system analyzes the reflected power measurements to identify which measurements are associated with reflections from a respective spherical object. Using such measurements, the system determines a system differential reflectivity value, and combines such value with reflected power measurements for calibration. Since the calibration is based on real-time data measurements, the calibration process may run simultaneously with the collection of weather data. Further, the calibration process is immune to the weather events within range of the radar system. Accordingly, it is possible for the calibration to be performed at any time and without interfering with the weather monitoring activities regardless of the types of weather events occurring within the vicinity of the radar system.

IPC 8 full level

G01S 13/95 (2006.01); **G01S 7/02** (2006.01); **G01S 7/40** (2006.01)

CPC (source: EP US)

G01S 7/025 (2013.01 - EP US); **G01S 7/4021** (2013.01 - EP US); **G01S 13/951** (2013.01 - EP US); **Y02A 90/10** (2017.12 - EP US)

Citation (search report)

- [Y] WO 2009114864 A1 20090917 - UNIV COLORADO STATE RES FOUND [US], et al
- [Y] GORGUCCI E ET AL: "CALIBRATION OF RADARS USING POLARIMETRIC TECHNIQUES", IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 30, no. 5, 1 September 1992 (1992-09-01), pages 853 - 857, XP000325070, ISSN: 0196-2892, DOI: 10.1109/36.175319
- See references of WO 2012139029A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

US 2012256785 A1 20121011; **US 9097805 B2 20150804**; AU 2012239932 A1 20131031; AU 2012239932 B2 20160211; EP 2694995 A1 20140212; EP 2694995 A4 20150318; MX 2013011652 A 20140414; WO 2012139029 A1 20121011

DOCDB simple family (application)

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